

Work Order ID 61548

Monday, August 30, 2010 11:03:57 AM



Page 1

Item ID: D206-642-241

Accept



Setup Start



Revision ID:

Item Name: Replacement Skidtube

Stop



Start Date: 8/30/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 9/6/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: *H*Date: *10-8-30* Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty.	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
100		0.00							
D2650	Rev F								

100



DOCUMENT CONTROL

DC

Document Control

Memo

0.00

Photocopy bluefile & type labels per PPP D206-642-241

CHG005

N/A HJ

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center ID

110

Operation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Skidtubes

Skidtubes

0.00

Skidtubes

Memo

0.00

1-Deburr Fwd edge of tube

2- Remove ridge on inside of Fwd edge of tube as per Dwg D2650

3-Weld Fwd Cap as per Dwg D2650. Use aluminum rod. Grind D2647 to fit as required.

Pick:

Qty Part Number Description BatchA/R Aluminum Rod

M112507 / M114877 DE 10-09-01

4-Grind weld flush to cap on top surface only.

BG 10-09-01

5-Cut Aft end as per dwg 2650 from front of tube and Deburr

6-Remove inner indexing ridge on Aft end of skidtube as per Dwg D2650

7-Open holes for Aft end cap as per Dwg D2650 with #30 Drill Bit using DT8025.

8-Drill pilot holes using Dt 8167:

9-Locate DT8732 from inner Aft saddle hole & 3rd crossbolt hole. Insert D3286-1 doubler using DT8732 & D206-642-241-T1, then locating doubler off of 3/16" holes, cleco DT8732 & doubler leaving DT8732 for added support.

10- Drill D3286-1 doubler-rivet holes in tube using # 30 drill, spot drilling doubler at the same time.

SAP
10-09-01

SAP
10-09-02

DP 10-9-13

W/O:		WORK ORDER CHANGES					
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Date: _____ Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____ SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

11-Working from the center out, drill # 30 holes into D3286-1 doubler. Cleco each hole as it is being drilled. Verify angle of holes to accommodate rivet heads.

12-Remove 3/16" cleco's only and open GHW holes to Ø0.500" as per Dwg D2650

13-Remove D3286-1 doublers, identify orientation, deburr, then attach them to the workorder

14-Remove indexing edge using DT8741 as per Dwg D2650

15-C'sink GHW rivet holes as per Dwg D2650

120



QC

Quality Control

QC6- Inspect dimensions to drawing

0.00

8/30/13

Memo

0.00

40

10-9-13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

130

Operation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Skidtubes

Skidtubes

Skidtubes

0.00

Skidtubes

Memo

0.00

1-Open crossbolt holes to Ø0.3125"

2-Drill pilot holes using DT8028-3, then open to Ø0.297" as per Dwg D2650
Open Aft cap hole #6.

3-Deburr tube and blow out chips from inside the tube

0.00

140



Chemical Conversion Coat per QSI005 4.1

0.00

HandFinish

Hand Finishing

Memo

0.00

150



QC3- Inspect Part Finish

0.00

QC

Quality Control

Memo

0.00

DP 10-9-15

DP 10-9-15

1 BE 10-09-15

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Customer:

Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

**Sequence ID/
Work Center ID**

160



Skidtubes

**Operation
Description**Set Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

0.00

Skidtubes

Memo

0.00

1-Open holes to finished size as per Dwg D2650, D2650-3 Drilling Detail
(without cutting fluid)

2-C'sink crossbolt spacer holes as per Dwg D2650(without cutting fluid)

3-Deburr and blow out all chips from inside the tube

10-9-15

170



QC

Quality Control

QC6- Inspect dimensions to drawing

0.00

Memo

0.00

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

180

Operation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

0.00

Skidtubes

Memo

0.00

Skidtubes

1-Locate, install and rivet doublers as per Dwg D2650. Micro-shave rivets as required

2-Bond D2654-3 web in place as per QSI 015. Ensure holes line up. Allow 12 Hrs. cure time before cutting

Start Date: 10-9-15 Time: 2:30pm
Finish Date: 10/9/16 Time: 8:30am

Pick:

Qty Part Number Description Batch
A/R Sikaflex-291 M115114
Sikaflex expire date: 11-1-30

190



QC5- Inspect part completeness to step on W/O

0.00

0.00 6/10/09/16

QC

Quality Control

Memo

OK10-9-15

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center ID

200

Operation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Skidtubes

Skidtubes

0.00

Memo

1-remove alodine from around hole and prepare for welding

2-Prep per QSI 005 and Insert D2649 crossbolt spacers. Weld as per QSI 004 and Dwg D2650. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod.

Pick:

Qty Part Number Description BatchA/R Aluminum Rod 2649

BE 10/09/27

3-Grind welds flush as per Dwg D2650.

4-Using DT8733, insert (2) D3286-3 spacers as per QSI 004 and Dwg D2650. Remember to back drill each hole to Ø0.402" before welding other side. Use SS rod as required.

A/R SS Rod NONE

BE 10/09/28

5-Counterbore 5/16" x 0.750" deep except 7th hole from Aft end as per Dwg D2650. Deburr

BE 10/09/28

W/O:		WORK ORDER CHANGES					
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Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center ID

210



HandFinish

Operation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

0.00

0.00

0.00

0.00

0.00

0.00

220



QC

Quality Control

QC9- Inspect visual per QSI004- Fusion Welds

0.00

QC9 10.05.29

QC10 10.09.29

230



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00



W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center ID

240



HandFinish

Hand Finishing

Operation
Description

Pressure Wash per QSI005 4.3

Set Up/
Run Hours

0.00

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

→ M 16/09/30

1 0

250



Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

M 10/05/29/

0.00

→ M 10-10-4

0 0

Memo

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

8:45
320°
9:15

0.00

260



QC

Quality Control

QC3- Inspect Part Finish

0.00

→ M 10/10/04

1 0

Memo

0.00

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

270



HandFinish

Hand Finishing

Operation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

0.00

=) M

10/10/05

1

Q

HandFinishing

Memo

0.00

1- Install inserts & wearpads as per dwg D2922. Use a drop of Sikaflex inside
Insert holes before installing wearpad/wearplate.A/R Sikaflex-291 11/15/14 Sikaflex expire date: 11/012-Install D2651-3 O-Rings on D2651-1 plugs with Petroleum Jelly and install
plugs as per Dwg D2650 (D2650-3 detail). Clean excess adhesive.

3-Install MS27039-4-06 Screw as per DEO 9153.

4 -Install D2646 Aft Cap and seal with Sikaflex. Clean excess adhesive

A/R Sikaflex-291 11/15/14 Sikaflex expire date: 11/01

5 -Wing Walk as per Dwg D2650-3 and QSI 005 4.4

A/R Batch: 11/15/02 8Batch: 11/15/02 8

300



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

S(0/0/0)

Memo

0.00

(40)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Date: _____ Tooling: _____

Date: _____

Run Start



QC: _____ Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center ID

310

Operation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

0.00

Packaging

Packaging

PPP 61548

320



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

W/O:		WORK ORDER CHANGES					
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Picklist Print

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Page 1

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Parent Item: D206-642-241



Parent Item Name: Replacement Skidtube

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev: 04.12.02 □ Revised procedural steps □ KJ/JLM IPP RevP: revise and update route/bom DD 10.01.06 verified by: EC □ IPP rev Q 10.02.19 per PAR 09-043 EC verified by: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2620 		Manufactured	No			110	Each	4.0000	1	1		OD P 10-9-1	
Skidtube, 206 Skidtube							<u>Location</u>	<u>Loc Qty</u>				<u>Loc Code</u>	
				LG	57542		BG1632	4				OD P	10-9-1
								4					
D3286-1 		Manufactured	No			110	Each	29.0000	2	2		DD 10-9-13	
Doubler							<u>Location</u>	<u>Loc Qty</u>				<u>Loc Code</u>	
				ST050	52844		52844	29				DD	10-9-13
								29					
D2647 		Manufactured	No			110	Each	72.0000	1	1		1 8610/09/01	
Cap							<u>Location</u>	<u>Loc Qty</u>				<u>Loc Code</u>	
				FP	55352			72				1	1
								72					
D2654-3 		Manufactured	No			180	Each	2.0000	1	1		OD 10-9-15	
Web							<u>Location</u>	<u>Loc Qty</u>				<u>Loc Code</u>	
				LG	55041		55041	2				OD	10-9-15
								2					

W/O:		WORK ORDER CHANGES					
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Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

CR3212-4-04



Purchased No

180 Each

463.0000

52

52



Cherry Rivet

Location

ST311

Loc Qty

463

Loc Code



10-9-15

112314
113644
113749

63
200
200

D2649



Manufactured No

200 Each

29.0000

18

18



Cross Bolt Spacer

Location

LG

Loc Qty

29

Loc Code

B61496 18 BE 10/09/27

58545
60652

2
27

D3286-3



Manufactured No

200 Each

13.0000

2

2



Spacer

Location

LG

Loc Qty

13

Loc Code

2 BE 10/09/28

46643

13

D2680-041



Manufactured No

210 Each

35.0000

1

1



Nut Plate

Location

ST021

Loc Qty

35

Loc Code

1 BE 10/09/28

55366

35

W/O:		WORK ORDER CHANGES					
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Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

CR3212-4-03

Purchased

No

210

Each

1,910.000

2

2



Cherry Rivet

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST311	1910	
111359	5	
112314	2	
114436	448	
114450	81	
114859	1374	

CCR264SS3-3

Purchased

No

210

Each

470.0000

2



Cherry Rivet

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST311	470	
112314	4	
113539	44	
113973	422	

D2646

Manufactured

No

270

Each

.71.0000

1



Aft Cap

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP-4	62	
57332	62	
FP6	9	
52663	9	

2 BE 10/09/28

2 BE 10/09/28

1 H 10110104

v1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, August 30, 2010 11:04:00 AM

Page 4

Work Order ID: 61548



Parent Item: D206-642-241



Parent Item Name: Replacement Skidtube

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D2651-1



Manufactured No

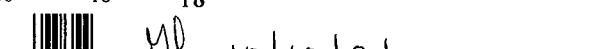
270

Each

734.0000

18

18



Plug

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	152	
51530	152	
fpa	582	
53349	411	
57869	171	

AN960JD416



NAS1149D0463J

Purchased

No

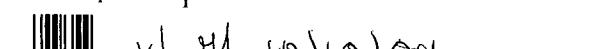
270

Each

0.0000

1

1



Washer

D2651-3



Manufactured No

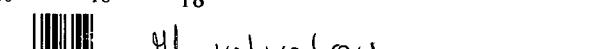
270

Each

342.0000

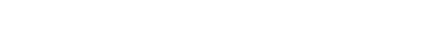
18

18



O-Ring

MS27039-1-08



Purchased

No

270

Each

1,685.000

46

46



Screw

STK W/D
CH61

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST291	1685	
110835	493	
114718	192	
115108	1000	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10.10.04	150	USE MS27039C1-08 SCREW Qty(4) M115336 USE MS27039-1-08 SCREW Qty(2) M110835	jl	10/10/04	X44 X2	JL 10.10.04 QSI 041	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, August 30, 2010 11:04:00 AM

Page 5

Work Order ID: 61548



Parent Item: D206-642-241



Parent Item Name: Replacement Skidtube

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-130

Purchased

No

270

Each

3,094.000

44

44



M 10110104

Insert

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

PKG11	2902	
-------	------	--

114723

2902

X414

ST282	153	
-------	-----	--

110511

153

114407	10	
--------	----	--

114407

10

ST381	143	
-------	-----	--

114654

143

114654	39	
--------	----	--

114654

39

ST381	39	
-------	----	--

114654

39

MS27039-4-06

Purchased

No

270

Each

118.0000

1

M 10110104

Screw

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST292	118	
-------	-----	--

109061

118

X1

115460	24	
--------	----	--

115460

24

115460	94	
--------	----	--

115460

94

AN960JD10L

NAS1149D033J

Purchased

No

270

Each

2,481.000

46



M 10110104

Washer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST348	2481	
-------	------	--

110985

2481

X2

110985	2481	
--------	------	--

110985

2481

★ SEE W/D CHG.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/10/05	270	USE Qty (44) AN960 C10L WASHER Qty (2) AN960DJ10L WASHER NAS1149D0463J / M11562Z	W	10/10/04	X44 X 2	P 10/10/05 QSI 042	S 10/10/05

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, August 30, 2010 11:04:00 AM

Page 6

Work Order ID: 61548



Parent Item: D206-642-241



Parent Item Name: Replacement Skidtube

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D3537-1



Manufactured No

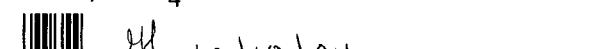
270

Each

8.0000

4

4



JL 1010104

Wearpad

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP	1	B6B640
----	---	--------

55465

1

D3537-3



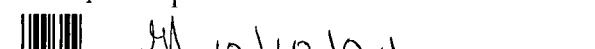
Manufactured No

270

Each

9.0000

1



JL 1010104

Wearpad

D3535-13



Manufactured No

270

Each

7.0000

1



JL 1010104

Wearshoe

D3536-13



Manufactured No

270

Each

10.0000

1



JL 1010104

Gasket

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, August 30, 2010 11:04:00 AM

Page 7

Work Order ID: 61548



Parent Item: D206-642-241



Parent Item Name: Replacement Skidtube

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D3535-21



Manufactured No

270

Each

11.0000

1



M 10/10/05

D3536-21



Manufactured No

Location
FP
55730

Loc Qty
11
11

Loc Code

270

Each

4.0000

1



M 10/10/05

D3535-33



Manufactured No

Location
FP
47010

Loc Qty
4
4

Loc Code

270

Each

1.0000

1



M 10/10/05

D3536-33



Manufactured No

Location
FP
51647

Loc Qty
1
1

Loc Code
B6150Z

270

Each

12.0000

1



M 10/10/05

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

QTY -1	QTY -3	QTY -5	QTY -7	PART NUMBER	DESCRIPTION
X				D2650-1	SKIDTUBE ASSEMBLY
X				D2650-3	SKIDTUBE ASSEMBLY
	X			D2650-5	SKIDTUBE ASSEMBLY
		X		D2650-7	SKIDTUBE ASSEMBLY
1	1	1	1	D2600-1-160	EXTRUSION
1				D2654-1	WEB
1				D2654-3	WEB
	1			D2654-5	WEB
		1		D2654-7	WEB
1	1	1	1	D2646	AFT CAP
1	1	1	1	D2647	CAP
17	18	19	23	D2649	CROSS BOLT SPACER
16	18	14	22	D2651-1	PLUG
16	18	14	22	D2651-3	O-RING
1	1	1	1	D2680-041	NUT PLATE
2	2			D3286-1	DOUBLER
2	2			D3286-3	STUD
42	44	54	60	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, ALS7-1032-130)
2	2	2	2	AN960JD10L	WASHER
2	2	2	2	CCR264SS3-3	RIVET
2	2	2	2	CR3212-4-03	RIVET
2	2	2	2	MS27039-1-08	SCREW
1	1	1	1	MS27039-4-06	SCREW
1	1	1	1	AN960JD416	WASHER
52	52			CR3212-4-04	RIVET

F

C21019102

W10.61548

RELEASED
08-27-23 MP

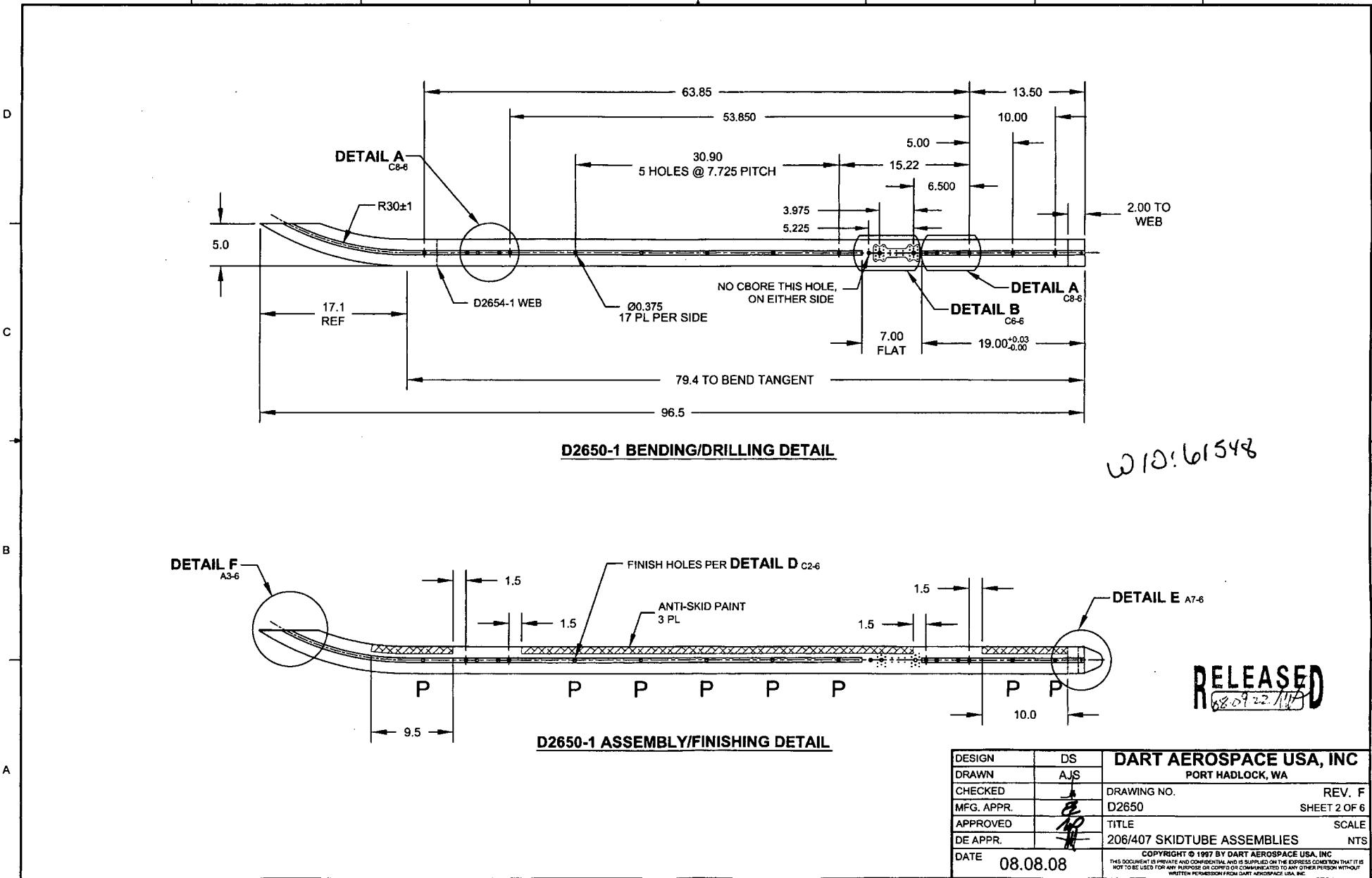
F

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
-BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A
- 8) WELD PER DART QSI 004
- 9) DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 10) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
- 11) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)
- 12) DRILL Ø0.297 FOR ALS7-1032-130 INSERTS USING TEMPLATE DT8056-1 ON -1 TUBE, DT8056-3 ON -3 TUBE, DT8056-5 ON -5 TUBE, AND DT8056-7 ON -7 TUBE. INSTALL INSERTS AFTER FINISH.
- 13) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

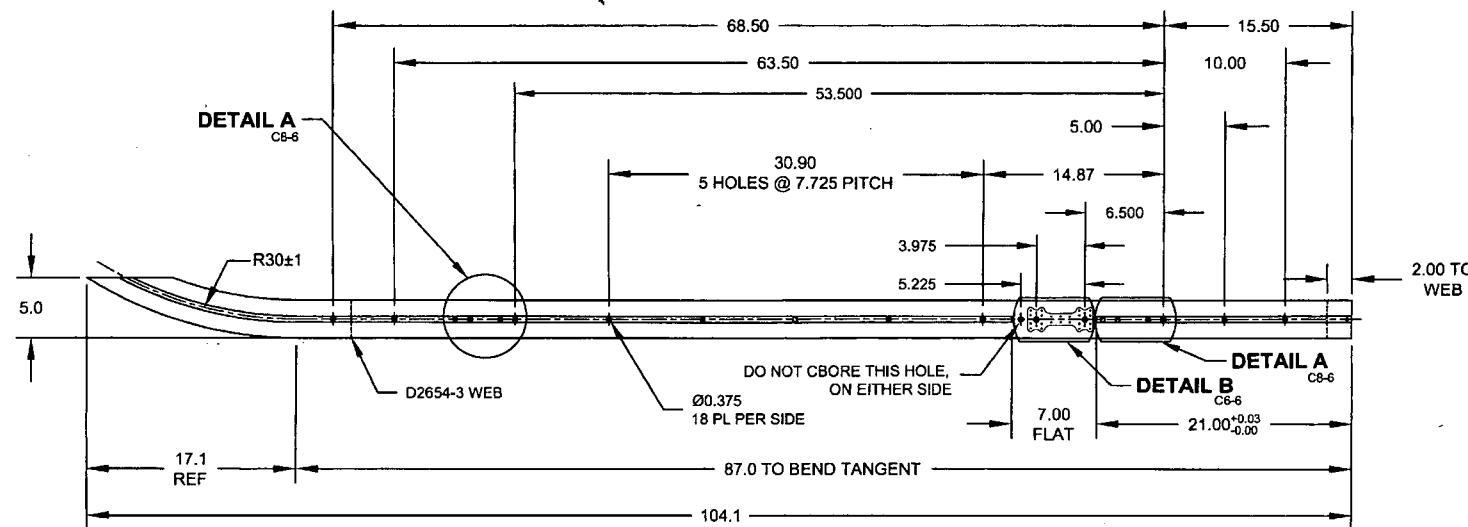
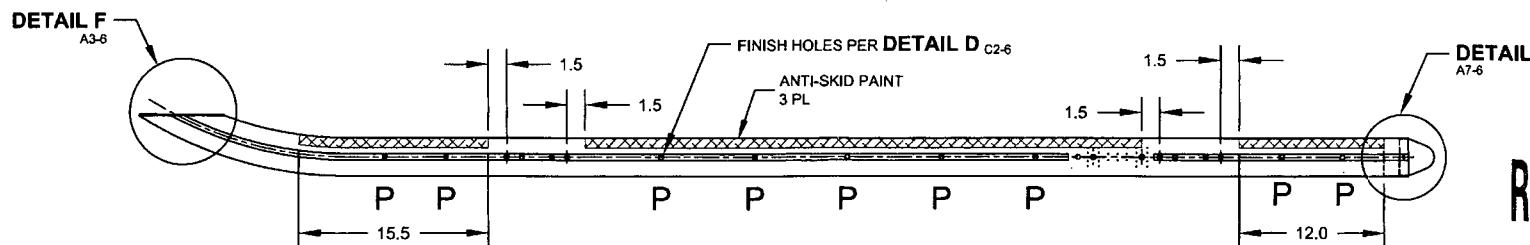
F	DRAWING UPDATED TO CURRENT STANDARDS. SHT 6 ADDED. ALL SECTION AND DETAIL VIEWS TRANSFERRED TO SHT 6. SHT 1 IN PL PART D2649 QTY MODIFIED. SHT 6 SECT C-C GRIND INSTRUCTIONS DELETED FROM NOTE 7 (SEE NCR 239).	AJS	08.08.08
E	RMOVE CBORE, CHG DRILL, ADD CHAMFER	CP	06.03.30
D	REDRAW; INCCR. DE09136/9153/9163 MOD GROUND HANDLING ON D2650-1-3	CP	04.05.17
C	CHANGE HOLE PATTERN AND FRONT END	DS	97.10.29
B	AS MANUFACTURED CHANGES	DS	97.06.26
A	NEW ISSUE	DS	97.03.25
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED	J	DRAWING NO.	REV. F
MFG. APPR.	Z	D2650	SHEET 1 OF 6
APPROVED	Z	TITLE	SCALE
DE APPR.	Z	206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC	

8 7 6 5 4 3 2 1



8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

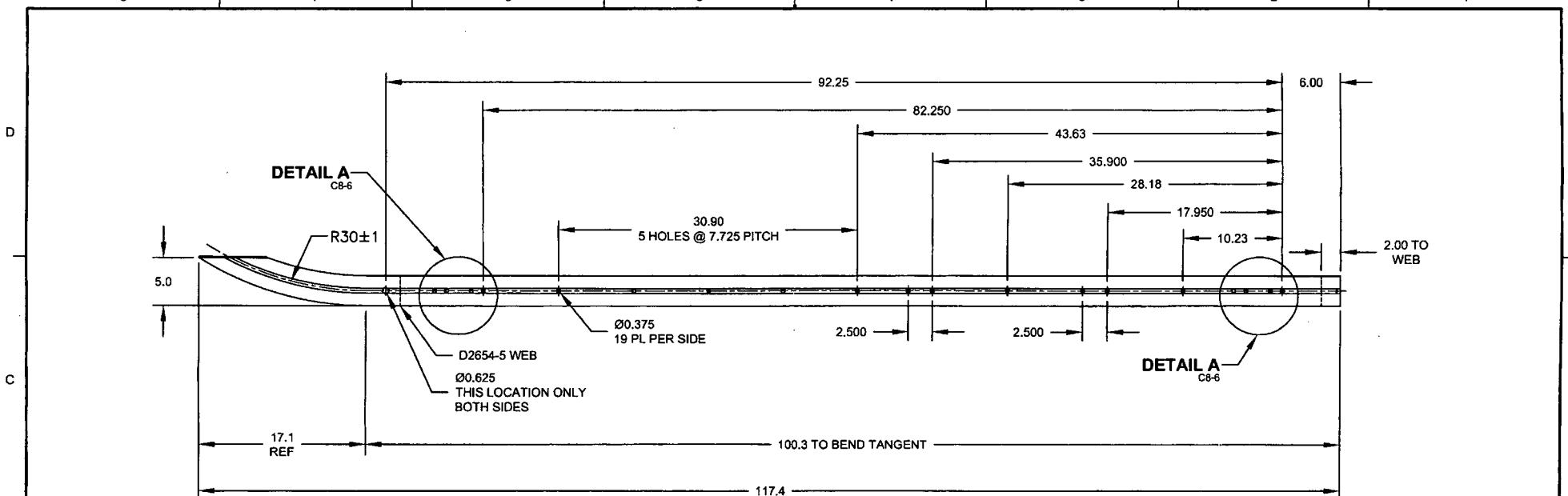
D2650-3 BENDING/DRILLING DETAILD2650-3 ASSEMBLY/FINISHING DETAIL

DESIGN	DS	DART AEROSPACE USA, INC PORT HADLOCK, WA
DRAWN	AJS	DRAWING NO. REV. F
CHECKED		D2650 SHEET 3 OF 6
MFG. APPR.		TITLE SCALE
APPROVED		206/407 SKIDTUBE ASSEMBLIES NTS
DE APPR.		
DATE	08.08.08	

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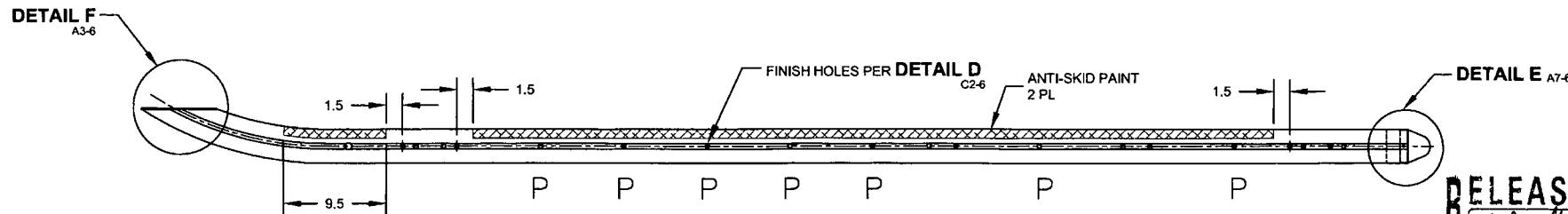
8 7 6 5 4 3 2 1



D2650-5 BENDING/DRILLING DETAIL

Q10.61548

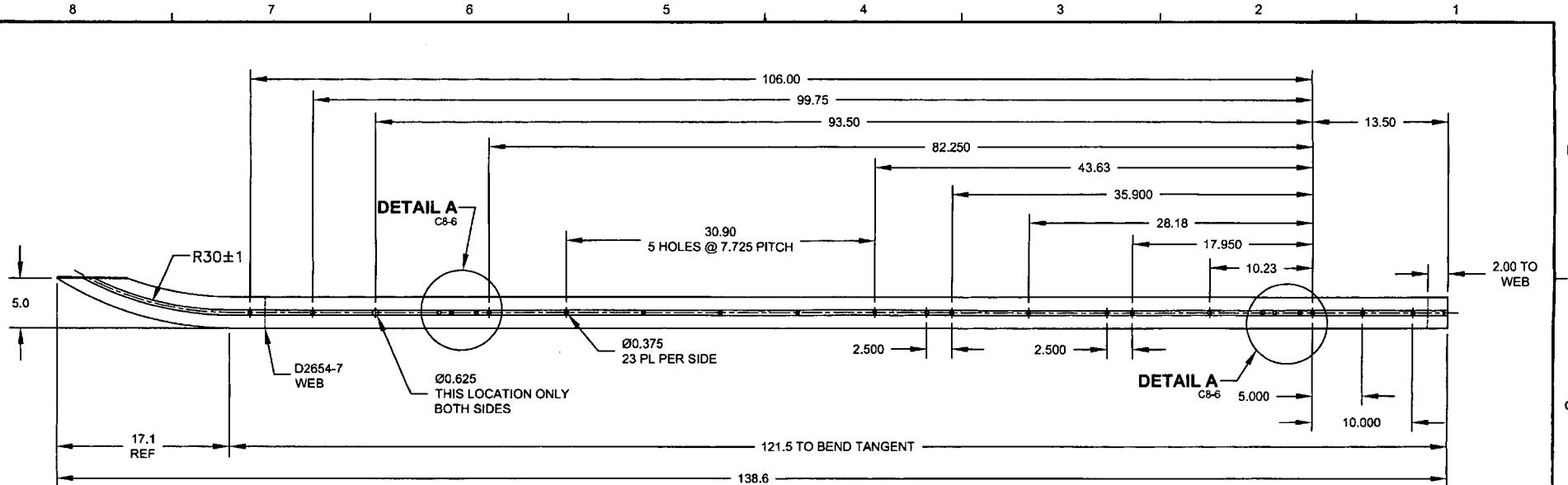
B 8 7 6 5 4 3 2 1



D2650-5 ASSEMBLY/FINISHING DETAIL

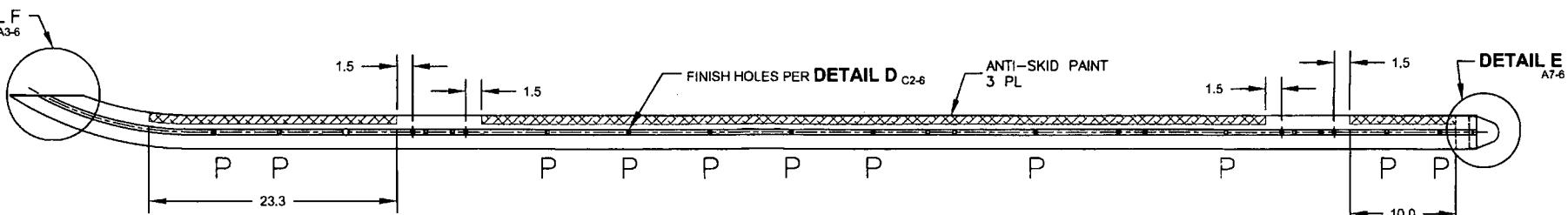
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08.09.22 /M

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CHECKED	<i>JH</i>	DRAWING NO.	REV. F
MFG. APPR.	<i>ZP</i>	D2650	SHEET 4 OF 6
APPROVED	<i>ZP</i>	TITLE	SCALE
DE APPR.	<i>ZP</i>	206/407 SKIDTUBE ASSEMBLIES	NTS
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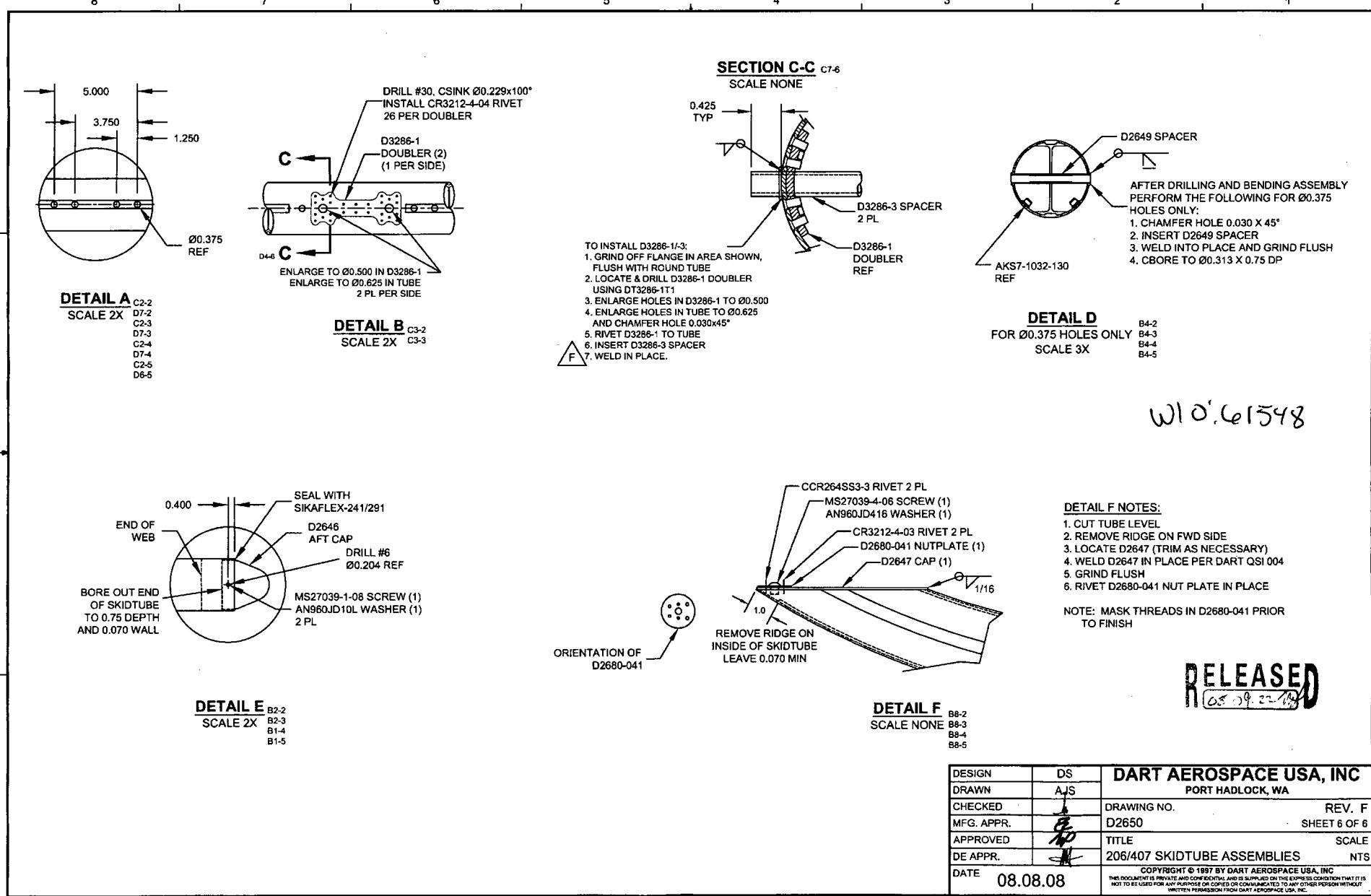
W 10'. 61548

RELEASED
08-09-22



D2650-7 ASSEMBLY/FINISHING DETAIL

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.	BZ	D2650	SHEET 5 OF 6
APPROVED	SP	TITLE	SCALE
DE APPR.	SP	206/407 SKIDTUBE ASSEMBLIES	NTS
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08.08.08			





NO. 251

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Borday Elliott
Job number: 61039
Part number: D206-612-441
Description: D206 skid tube
Welding Process: Tig[] Mig[]
Base materiel: Aluminium
Current: AC[] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[] fail[]
Penetration: pass[] fail[]

UNACCEPTABLE

Cracks: pass[] fail[]
Undercut: pass[] fail[]
Pin holes: pass[] fail[]
Overlap (cold lap) pass[] fail[]
Porosity (surface): pass[] fail[]
Coloration: pass[] fail[]

Qualifier R.D. Dry Date of Test Coupon 10.08.19

Welder Borday Elliott Date of Test Coupon 10.08.19

The above named individual is qualified in accordance with AWS D17.1.2001 to weld